**Province of British Columbia**
Ministry of Forests

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# LOWER STIKINE

# MANAGEMENT PLAN

May 1989
Ministry of Forests
Prince Rupert Forest Region

Approved by the Environment and Land Use
Committee in May 1989

## FORWARD

The Lower Stikine flows through northwest British Columbia adjacent to the Alaskan Panhandle and enter the Pacific Ocean near Wrangell, Alaska. The Lower Stikine Management Plan refers to the stretch of river from Glenora downstream to the Alaskan border.

The character of the Lower Stikine has evolved over the past century from that of a "working" river utilized by native people, gold miners, fur traders and others seeking a route to the interior, to that of today serving a dual role of providing a livelihood for local residents (particularly from salmon fishing) and exciting wilderness opportunities for recreationists. The demands placed upon the river have broadened over the past few decades and these demands are likely to increase in the future.

As a result of the public sentiment from many groups in favour of protecting the wild and scenic characteristics of the Stikine, this area was one of those evaluated by the Wilderness Advisory Committee in 1986. Due to this interest and the many issues surrounding the Lower Stikine, the Ministry of Forests recognized the need for an overall land management strategy for the area. Approximately eighteen months ago the Ministry of Forests spearheaded a comprehensive planning study and through the assistance of a public planning committee prepared a draft management plan. This plan was reviewed by the general public and presented at three public open houses held in Dease Lake, Smithers, and Vancouver. The plan has been approved by the Environment and Land Use Committee.

## TABLE OF CONTENTS


1. **INTRODUCTION** . . . . . 1

1.1 Background . . . . . 1
1.2 Study Objectives . . . . . 4

2. **MANAGEMENT PLAN DEVELOPMENT** . . . . . 5

2.1 Issues and Concerns . . . . . 5
2.1.1 Access . . . . . 6
2.1.2 Recreation . . . . . 7
2.1.3 Mining Exploration and Development Management . . . . . 7
2.1.4 Timber Harvesting . . . . . 8
2.1.5 Fish and Wildlife . . . . . 8
2.1.6 The Tahltan People . . . . . 10
2.1.7 Non-Native Traditional Activities . . 11
2.1.8 Land Alienation . . . . . 11
2.1.9 Archeological Resources . . . . . 11
2.1.10 Monitoring and Enforcement . . . . . 12

2.2 Management Plan Goals and Objectives . . . . . 13
2.2.1 Overall Goals and Objectives . . . . . 13
2.2.2 Recreation Values 15
2.2.3 Mineral Exploration and Development . 16
2.2.4 Commercial Timber Harvesting . . . . . 18
2.2.5 Fish Values . . . . . 20
2.2.6 Wildlife Values . . . . . 21
2.2.7 The Tahltan People . . . . . 21
2.2.8 Non Native Traditional Activities . . 22
2.2.9 Heritage Values . . . . . 22

2.3 Projected Recreational Use and Facility . . . . Requirements. . . . . 23

**3.0 MANAGEMENT PLAN IMPLEMENTATION** . . . . . **24**

3.1 Initial Steps . . . . . 24
3.2 Regulatory Requirements . . . . . 24
3.3 Research Requirements . . . . . 25
3.4 Monitoring Programs . . . . . 25

**4.0 MANAGEMENT PLAN REVIEW** . . . . . **27**

## LIST OF APPENDICES

1. Timber Values and Management Guidelines

2. Mineral Values

3. Lower Stikine Management Plan

## Executive Summary

The Lower Stikine River flows through northwest British Columbia adjacent to the Alaskan Panhandle and enters the Pacific Ocean near Wrangell, Alaska. The Stikine is one of the major transportation routes through the Coast Range. In addition, the area possesses provincially significant mineral resources, scenery and recreational opportunities in a natural setting, commercial populations of salmonids and locally significant timber, fish, wildlife and heritage resources.

This management plan recognizes and accommodates the wide range of values and uses of the area under a multiple use strategy. More specifically, the goal statements for management of the various resources are as follows:

(i) Recreation Values: To provide for low inpact recreation compatible with maintaining the natural character of the river and its environs.

(ii) Mineral Exploration and Development: To permit the continuation of mineral exploration activities in a manner which does not unacceptably impair the natural character of the river corridor.

(iii) Commercial Timber Harvesting: To emphasize maintenance of the natural character of the river in the preparation and approval of any timber harvesting plans.

(iv) Fish Values: To manage and protect the fisheries resource and enhance fish populations and their habitat consistent with the objectives of the management plan.

(v) Wildlife Values: To manage and protect the wildlife resource; and where possible to enhance existing populations of wildlife.

(vi) The Tahltan People: To recognize the historical use of the Lower Stikine by the Tahltan people as a fundamental precept for any management program.

(vii) Non-Native Traditional Activities: To ensure that opportunities for non-native activities are maintained.

(viii) Heritage Values: To protect heritage sites within the planning area.

This plan will be monitored by the various agencies within their area of responsibility; reports will be made to the Forest Service who will table these with a Management Advisory Committee on an annual basis.

# 1.0 INTRODUCTION

## 1.1 BACKGROUND

The Lower Stikine River flows through northwest British Columbia adjacent to the Alaskan Panhandle and enters the Pacific Ocean near Wrangell, Alaska. The Lower Stikine Management Plan refers to the stretch of river from Glenora downstream to the Alaskan border.

Once a "working" river utilized by native people, gold miners, fur traders and others seeking a route to the interior prior to the widespread use of aircraft and the development of roads from the south, the Lower Stikine today serves a dual role of providing a livelihood for local residents (particularly from salmon fishing) and exciting wilderness opportunities for recreationists. As noted above the Stikine River has been a transportation corridor on a small scale in the past. However, being one of the three major natural corridors that cut through the Coast Range of British Columbia, the Lower Stikine River may one day play a major role in the future development of northwestern British Columbia. The demands placed upon the river have broadened over the past few decades and these demands are likely to increase in the future.

There has for some time been widespread public interest in protecting the spectacular scenery and wilderness character of the Stikine environment, the opportunities to view a wide variety of wildlife, and the

opportunity for paddlers of moderate skills to undertake a multi-day float trip from source to mouth (with portage around the Grand Canyon) in a wilderness setting. Because of its topography, British Columbia does not have many rivers with this combination of features. In the early 1970's Parks Canada identified the Stikine as a candidate for inclusion in a national wild rivers system then being considered.

As a result of public sentiment from many groups in favour of protecting the wild and scenic characteristics of the Stikine, the entire river was one of the areas considered by the Wilderness Advisory Committee in 1986. The Committee noted that "mineral potentials have not been systematically surveyed in the Stikine River basin, but zones of copper mineralization have been discovered in the vicinity of the Lower Stikine. Future access to these will probably be required along the Lower Valley". The Committee also noted in its report that "the development of a transportation corridor associated with resource development could adversely affect the scenic and recreation values". The Committee recommended that a Scenic Corridor be established along the Lower Stikine to protect scenic values, the boundaries of which should be from the river to the top of the first ridge on either side. Subsequent to the release of the Committee's Report, the Stikine from Telegraph Creek upstream to the Spatsizi Plateau Wilderness Provincial Park has been designated a

Recreation Area under the Park Act and is to be administered by the Ministry of Parks.

The Wilderness Advisory Committee recommendations, the need to reconcile public demands to protect the wilderness quality of the Stikine along with the need to recognize the area's mineral potential and transportation requirements, have led the Forest Service (the government agency with primary management responsibility in the area) to spearhead a planning study for the Lower Stikine. The Lower Stikine Management Plan is the outcome of that study.

The Forest Service recognizes the need to protect the landscape and recreational resources of the Lower Stikine River as well as the need to maintain transportation options in the planning area. The Lower Stikine Management Plan is based on the recognization and protection of these resource values. The Plan has been developed through an iterative process of participatory public involvement.

The Management Area boundaries (see Appendix 3) parallel the Stikine River from approximately Glenora to the Alaskan border. The total length of river in the planning area, from the northern boundary to the International Border, is approximately 165 kilometers. A portion of the Iskut River (upstream from the confluence of the Iskut and Stikine Rivers) is also covered in the study area. The Corridor boundaries approximate the visible high and medium sensitivity areas as defined in the 1985 Landscape Inventory (Peepre and Associates).

## 1.2 STUDY OBJECTIVES

The objectives of the Lower Stikine Planning Study were as follows:

1. To maintain a close, working relationship with the members of the working group identified to assist the Forest Service throughout the planning process.
2. To establish the final boundaries of the management area.
3. To formulate management objectives for the area relating to recreation, development, access, industrial and private uses, etc.
4. To identify the implications of different plan options as they may affect the government, various agencies, municipalities, resource users, local residents and the public at large.
5. To seek input from all concerned agencies, organizations and individuals.
6. To define the role of other agencies in implementation of plan specifics.
7. To specify appropriate management prescriptions for the Lower Stikine River.
8. To establish an action plan for the implementation of management prescriptions.

## 2.0 MANAGEMENT PLAN DEVELOPMENT

A number of reports prepared for previous planning projects were utilized as background material for this management plan, particularly the "Lower Stikine Planning Report" prepared by the Ministry of Forests in 1984. That report contains much of the background material relating to the resource base of the area and it remains a useful reference document for those interested in the Lower Stikine River.

This management plan takes into consideration public responses to the draft Management Plan. The key aspects of public input were the need to protect the scenic and recreation values along with the requirement to recognize the Lower Stikine's use and potential as a transportation route and the need to maintain transportation options for this area.

### 2.1 ISSUES AND CONCERNS

The following are issues and concerns presently known. These indicate the breadth of interest which must be dealt with in any management plan for the Lower Stikine. Lack of resolution of these items could create substantial implementation or management problems in future years.

2.1.1 ACCESS

- There is widespread public interest in maintaining the Stikine as a wilderness waterway. Following the general public perception of wilderness as a "roadless tract", road access development below Glenora may be viewed by a segment of the public as incompatible with the objectives of maintaining the Stikine as a wilderness waterway.
- The Lower Stikine area is known to have significant mineral potential. The development and operation of some mines may be contingent on road access through the planning area.
- Under a long-standing international treaty with the United States, the Stikine must remain open to navigation by Canadian and U.S. citizens subject to the laws and regulations of each country. This agreement has not been an obstacle to the establishment by the U.S. Congress in 1980 of the Stikine LeConte Wilderness encompassing the Alaskan portion of the Stikine. However, increased use of the planning area as a transportation route by both air and water methods could conflict with the management objectives unless dealt with in the management plan.
- The Alaskan Government is interested in the development of a U.S./Canada connecting road access to Wrangell.

2.1.2 RECREATION

- the ability to maintain high quality wilderness recreation experiences, while accommodating the interests of industrial resource users, as well as local native and non-native concerns and traditional uses, presents a major management problem.
- Conflicts could arise between different types of recreational users (e.g. motorized vs non-motorized, commercial vs non-commercial).
- Crowding and loss of the "wilderness experience" sought by recreationists could occur.
- Uncontrolled recreation uses, particularly camping, could create management problems and reduce high quality recreation experiences.

2.1.3 MINING EXPLORATION AND DEVELOPMENT MANAGEMENT

- Mineral exploration and development activities within the planning area could seriously impact recreation/aesthetic values, and conflict with public interest in preserving the Stikine.
- Mineral reserves in the Stikine area are provincially significant. The metals in the two deposits (Galore Creek and Sphaler Creek) that have been explored in detail total 7.9 billion pounds of copper, 4.7 million ounces of gold and 57.8 million ounces of silver. Future development of these ore bodies is inevitable, however, major road access

through the planning area may be required for economical mine development.

2.1.4 TIMBER HARVESTING

- Timber harvesting within the planning area could seriously impact upon the recreation and aesthetic values and conflict with public interest in preserving the Stikine.
- Limited commercial logging has taken place in the lower reaches of the Stikine (below the Choquette River) since the 1960's. There are commercial logging opportunities in the Lower Stikine, however, there is some public resistance to such activities as they may impact on the wild and scenic nature of the river.

2.1.5 FISH AND WILDLIFE

a) Fish

- The Lower Stikine is an important salmon river and supports spawning populations of all five Pacific salmon species, with chinook, sockeye and coho salmon predominating. These three species are utilized in commercial, Indian food fish and sports fisheries. The salmon are an important element of the river ecosystem, and help support populations of bears, eagles and seals likely to be seen by river travellers.

- Although much of the spawning and rearing habitat is located upstream of the planning area, significant spawning and rearing does take place within it.
- Resident Dolly Varden Char along with steelhead and Cutthroat trout are present in the Lower Stikine and its tributaries
- Inappropriate resource extraction activities could seriously impair the fishery by degrading critical habitat.
- Planned river transportation activities as a result of future development should be coordinated with commercial fishing activities.

b) Wildlife

- Due to the remote location and absence of development, the Wildlife Branch, Ministry of Environment, has limited information in the size of wildlife populations or the nature and distribution of habitat. The most prominent wildlife species which may be affected by resource development are moose, grizzly bear and eagles.
- A major wildlife concern at present in the area is for moose, particularly the need to maintain conifer cover on the moose winter range along the floodplain . The Lower Stikine is a high snowfall area, and wintering moose in the area appear to require mature spruce canopy, which moderates the snow depth and possibly provides thermal protection.

- Bald eagles nest in the valley bottom cottonwood trees and will require protection from disturbance.
- Grizzly bears occur throughout the corridor and may be expected to concentrate in important salmon spawning areas. It will be critically important to minimize people-bear conflicts.

2.1.6 THE TAHLTAN PEOPLE

- The Tahltan people inhabit the Stikine area. They have a number of concerns regarding the planning process some of which are as follows:

1. Provisions in the management plan should allow the Tahltans economic ventures (ie. logging, mining, guiding, etc.) within the planning area.
2. They do not want to be grouped in with 'other legal residents'. The Tahltans state that their people have occupied this territory for generations, and that their rights are not the same as other legal residents.
3. They want to make it clear that any parks, past, present or future, should not jeopardize their outstanding land claims settlements.
4. They definitely want their hunting, fishing and trapping rights entrenched in any agreements. They want to make sure that any agreements that are put in place for the Tahltans at this time will not prejudice future negotiations regarding their aboriginal land claim.

2.1.7 NON-NATIVE TRADITIONAL ACTIVITIES

- The Stikine River up stream to Telegraph Creek has historically been a trading and transportation route. The river is still used to some extent for commercial traffic and this is expected to continue.
- Guide/outfitting, hunting, trapping, commercial fishing, commercial recreation (rafting, boat charters, etc.) and non-commercial recreation have occurred along the river for many decades. These must be addressed within the context of the Management Plan.

2.1.8 LAND ALIENATION

- There is an existing but limited demand for land alienations for commercial and non-commercial use. This demand is likely to increase and further land alienations could have an impact on the wildland recreation and aesthetic values within the planning area.

2.1.9 ARCHAEOLOGICAL RESOURCES

- There are numerous recorded archaeological sites upstream of Glenora where archaeological survey has occurred. The river below this point has never been surveyed for archaeological sites. Additional and upgraded baseline information regarding heritage will likely be required and the cost of such work is normally born by the proponent of a development project.

- Uncontrolled recreational uses, particularly camping, without prior knowledge of the heritage resources could cause irreparable damage to these resources.

2.1.10 MONITORING AND ENFORCEMENT

- The planning area is approximately 165 km in length. Existing staffing and funding levels will make monitoring and policing difficult.

## 2.2 MANAGEMENT PLAN GOALS AND OBJECTIVES

### 2.2.1 OVERALL GOALS AND OBJECTIVES

Management of the Lower Stikine River requires clear land use strategies which provide direction for the short term but leave future land use options open. These strategies must integrate potentially conflicting resource opportunities and uses which left unmanaged, might seriously affect the quality of the recreational experience along the river. Integrated resource management is the framework which has been utilized for planning of permissible uses within the Lower Stikine River management area.

Within this framework an overall strategy for recreation use, resource use, environmental protection and conflict resolution has been developed.

The Lower Stikine is recognized as an area; that possesses provincially significant recreation and scenic values; that possesses provincially significant mineral values and has potential as a major transportation route; and where indigenous use exists.

The overall management goal is to treat the Lower Stikine as an integrated management area where recreation and scenic values receive emphasis and where access and resource development, specifically mineral, will be managed to maintain these qualities. Should a road be required as

either an international connection between Canada and Alaska or for mineral development purposes, existing governmental review processes would evaluate such proposals in the context of the Lower Stikine Management Plan.

The overall objectives of the management plan are as follows:

a) manage recreational use and development in a manner which emphasizes maintaining the natural character of the Lower Stikine River.

b) to permit a variety of compatible interest groups to continue to utilize the Lower Stikine River and environs, where that use of the area does not irreparably impact upon recreation and aesthetic resources.

c) to permit continued mineral exploration subject to guidelines which emphasize maintaining the natural character of the area.

d) to provide provincial resource agencies with an integrated resource management plan which can be used as a guide in the interagency referral process for all resource development applications within the management area.

## 2.2.2 RECREATION VALUES

GOAL

To provide for low impact recreation compatible with maintaining the natural character of the river corridor.

OBJECTIVES

1. To establish site specific recreation management guidelines to protect scenic and wildland recreation values within the planning area.
2. To identify and develop as necessary appropriate campsites and hiking routes.
3. To protect key and fragile or sensitive sites from detrimental use, for example the area around the Great Glacier, the Choquette Hot Springs, etc.
4. To examine the issue of carrying capacity and develop management strategies consistent with recreation opportunity goals.
5. To establish a recreation emphasis for the evaluation of land tenure applications for commercial recreation facilities and activities within the corridor.
6. To develop impact monitoring programs for all recreation sites, such as campsites, trails and viewsites.
7. To retain the option of restricting recreational uses if and when unacceptable impacts of this activity are documented.

8. To publish a river route and hiking brochure which includes information on the natural history of the river, its features, safety and environmental ethics.
9. To enhance wildlife viewing opportunities in key locations.

### 2.2.3 MINERAL EXPLORATION AND DEVELOPMENT

GOAL

To permit the continuation of mineral exploration activities in a manner which emphasizes maintaining the natural character of the river.

OBJECTIVES

1. To work closely with Ministry of Energy, Mines and Petroleum Resources in the development of site specific exploration and local mineral access development guidelines to ensure the integration of both the mining industry and the recreationists activities in order to maintain the recreational and scenic values. Guidelines, additional to those existing general guidelines, should be developed where it is considered exploration activities or mineral access development could result in unacceptable impacts to the natural character of the river corridor.

2. To ensure that management objectives for the Lower Stikine are taken into consideration by the Mine Development Steering Committee in the evaluation of any potential mine development project and any associated major road access within or adjacent to the management area.

3. The present access for mineral exploration will continue utilizing air or water methods. Any local ground access planned for mineral exploration should adhere to a Retention landscape Visual Quality Objective, and be consistent with management plan objectives.

Local ground access is defined as any minor roads within the planning area which are not connected to a major road system (eg. from the river bank to a mineral deposit).

4. To ensure that any ground access created is subject to the "Guidelines for Mineral Exploration" prepared by the Ministry of Energy, Mines and Petroleum Resources in 1985.

5. To locate all exploration base camps in an unobtrusive manner to recreational travellers on the river.

6. To ensure that the reclamation of all exploration camps is subject to the conditions outlined in the "Guidelines for Mineral Exploration" (see #4 above).

7. To have EMPR restrict and close operations on the ground if it is determined that established guidelines are not being adhered to.

### 2.2.4 COMMERCIAL TIMBER HARVESTING

GOAL

To emphasize maintaining the natural character of the river in the preparation and approval of any timber harvesting plans. The recreational experiences sought by visitors and wildlife, fish, heritage and other values must not be unacceptably impaired.

For timber management purposes the planning area is divided into three (3) management units. The timber management goals associated with these units are as follows:

Unit 1 - Glenora to the Chutine River

Timber harvesting is permitted in this unit for only local uses such as building materials, firewood, etc.

Unit 2 - Chutine River to Darsmith Creek

Timber harvesting in this unit is not permitted at this time as the river has been identified as being unnavigable for the booming of logs.

Unit 3 - Darsmith Creek to the International Boundary

To permit selective timber harvesting utilizing aerial methods (ie. helicopter logging) only at this time. (See Appendix 1 for detailed management guidelines.)

OBJECTIVES

Where timber harvesting is permitted the following objectives will apply:

1. To manage all timber harvesting to achieve a Visual Quality Objective (VQO) of Retention as viewed from the river. Management activities must not be visually apparent.
2. To locate approved camps and upland log handling sites in unobtrusive sites not readily visible from the main river channel. A buffer strip shall be maintained to minimize visual impact for people travelling the river.
3. Approved regular refuse incineration or other disposal techniques will be maintained at camp and log handling sites in accordance with government regulations. Log handling and dump sites will be restored concurrent with the completion of operations at each landing.
4. To retain leave strips of native forests along the main channels of the Stikine River and to ensure that approximately 200 meters of natural setting will be maintained.

5. In order to minimize potential impacts on recreational and other users the watering, booming and transport of logs will be subject to guidelines provided in Appendix 1.

6. To restrict timber harvesting and close down operations if and when unacceptable impacts are documented.

### 2.2.5 FISH VALUES

GOAL

To manage and protect the fisheries resource and enhance fish populations and their habitat consistent with the objectives of the management plan.

The commercial salmonid fishery in the Lower Stikine is centered downstream of the Iskut River, but extending above it. This fishery is in a developmental stage and may grow or change in the future. The Management Plan should recognize this and be flexible enough to accommodate it.

OBJECTIVES

1. To ensure that the migrations of salmon and other anadromous species are not obstructed.

2. To ensure that land and water-based activities do not degrade fish habitat.

3. To ensure that activities associated with commercial and sport fishery are carried out in accordance with the overall objectives for the management area.

### 2.2.6 WILDLIFE VALUES

GOAL

To manage and protect the wildlife resource and where possible to enhance existing populations of wildlife.

OBJECTIVES

1. To acquire wildlife habitat and population information prior to any development activities which may have an impact on wildlife values.
2. To revise management plans as more information on wildlife becomes available.
3. To maintain critical moose winter range.
4. To identify eagle nesting trees and leave them undisturbed, especially during the March-July nesting season.
5. To ensure complete incineration and removal of all garbage at any camp location to avoid attracting bears.
6. To ensure that all uses of the Lower Stikine avoid negative impact on wildlife.

### 2.2.7 THE TAHLTAN PEOPLE

GOAL

To recognize the use of the Lower Stikine by the Tahltan people as a fundamental precept for any management program.

OBJECTIVES

1. To involve the Tahltan people in the preparation and implementation of specific management and development programs.

2. To ensure provision of improved opportunities for Tahltan social and economic development consistent with the overall management objectives.

2.2.8 NON-NATIVE TRADITIONAL ACTIVITIES

GOAL

To ensure that opportunities for traditional non-native activities are maintained.

OBJECTIVES

To ensure that the management plan allows for ongoing non-native traditional activities such as guiding, outfitting, fishing, hunting, trapping and other activities consistent with the overall management objectives.

2.2.9 HERITAGE VALUES

GOAL

To protect heritage sites within the planning area.

OBJECTIVES

1. The Archaeology and Outdoor Recreation Branch of the Ministry of Municipal Affairs, Recreation and Culture should be contacted prior to any resource development activities within the planning area. Where heritage sites are likely to occur, a qualified investigation may be required before decisions are made.

## 2.3 PROJECTED RECREATIONAL USE AND FACILITY REQUIREMENTS

Formal studies have not been carried out to project future use of the Lower Stikine. However, use of the river for float trips has been increasing over the past decade, due in large part to publicity over the proposed dams in the Stikine Grand Canyon. This plan assumes that the use of the Lower Stikine will increase substantially over time. As a starting and/or finishing point for river trips, Telegraph Creek is likely to require expanded accommodation and restaurant facilities, and have the opportunity to develop river guiding businesses.

## 3.0 MANAGEMENT PLAN IMPLEMENTATION

Because of the numerous issues requiring attention, the gaps in information, the need for public support and the need for more detailed planning and design prior to any facility development, the Lower Stikine Management Plan should be implemented in a incremental fashion. This section outlines the key implementation steps and identifies the major tasks that should follow adoption of the Management Plan.

### 3.1 INITIAL STEPS

Following a government decision regarding management plan approval, discussion with local residents, special interest groups and resource development sectors should occur so that the implications, meaning and intent of the management plan are fully appreciated. Emphasis should be on the development of a cooperative approach to dealing with management issues and implementing the plan.

### 3.2 REGULATORY REQUIREMENTS

Where possible, management programs should be premised on cooperation rather than regulatory enforcement. In this way, local residents and other river and corridor users will be encouraged to assist in the management of "their river".

## 3.3 RESEARCH REQUIREMENTS

Considerable information has been collected, compiled and analyzed prior to, and during the course of preparing this Management Plan. For the most part, this information base has proven sufficient for the development of an overall management framework, and to establish general direction for recreation value protection measures, maintenance of transportation options and the retention of traditional resource use activities. However, some additional upgraded baseline information will no doubt be required to establish detailed management strategies for specific resource and activity components within the management area.

## 3.4 MONITORING PROGRAMS

Mechanisms are required to monitor uses of the corridor and the response of the resource base to these uses. Monitoring should include the following:

- recreational activities (including impacts on campsites and trails)
- timber harvesting
- mineral exploration and development
- land alienations
- fishing
- hunting
- trapping

This monitoring will be conducted by the various agencies within their area of responsibility and reports will be made to the Forest Service who will table these with a Management Advisory Committee on an annual basis.

In addition, work should be undertaken to determine the perceptual carrying capacity of the river, to preserve the quality of the recreational experience. A major component of this research could be a structured survey of river visitors regarding their perceptions of crowding or "intrusions" on the natural character of the river.

## 4.0 MANAGEMENT PLAN REVIEW

The Lower Stikine Management Plan is a document developed to deal with a dynamic situation, and it must be flexible to changes in the environment, in activity levels, and to new information on the area. One of the keys to ensuring such flexibility is the establishment of a formal process to review and update the Plan to reflect changes in conditions and priorities. A Management Advisory Committee should be established to assist the Forest Service in the review and updating of the Management Plan on an annual basis. This committee should be comprised of representatives from the various interests concerned with the Stikine. In addition, consultation with local people as well as other members of the public will be conducted as required.

# APPENDIX 1

# TIMBER VALUES AND MANAGEMENT GUIDELINES

The following presents the timber values and management guidelines for the three timber management units as outlined on Page 18-19 of the Management Plan.

Unit 1: Glenora to the Chutine River

Description:

This area lies within two biogeoclimatic zones, the Boreal White and Black Spruce zone and the Spruce-Birch-Willow zone with the former predominating at lower elevations. White and black spruce, balsam fir and lodgepole pine are the dominant and commercially important tree species of the coniferous forest.

To date forestry activities have been limited to local extraction for milled products, log homes and firewood. This level of activity in the forest sector is due to limited access to southern markets, a low consumer demand locally and a limited amount of commercially harvestable timber.

Goal:

Timber harvesting is permitted in this unit for local uses such as building materials, firewood, etc.

Guidelines:

Any timber harvesting must meet a Retention Visual Quality Objective.

There is timber that has been identified outside the viewshed of the river which may be made available for commercial harvesting purposes. As this timber is outside the viewshed of the river, Visual Quality Objectives have not been applied.

Unit 2: Chutine River to Darsmith Creek

Description:

The Coastal Western Hemlock zone extends from Darsmith Creek northward to approximately the Scud River, and is typified by closed forests dominated by western hemlock and/or Sitka spruce. The Interior Cedar Hemlock zone extends north of the Scud River to just south of the Chutine River. Western hemlock typically forms extensive, old-growth stands along this stretch, occasionally in combination with minor amounts of subalpine fir and spruce. Black cottonwood is common on all valley floodplain ecosystems.

Goal:

Although timber values are significant in this unit, timber harvesting is not permitted at this time as the river has been identified as being unnavigable for the booming of logs.

Unit 3: Darsmith Creek to the International Boundary

Description:

This area lies within the Coastal Western Hemlock zone and is typified by closed forests dominated by western hemlock and/or Sitka spruce. Black cottonwood is common on all valley floodplain ecosystems. This area has significant volumes of commercial value species and there is an existing demand for this wood. The river is considered navigable for the booming and transport of logs.

Goal:

To permit selective timber harvesting utilizing aerial methods only at this time.

Management Guidelines for Unit 3

1. Only selective harvesting utilizing helicopters or other aerial methods will be permitted.
2. In order to achieve a VQO of Retention, selective harvesting will be restricted to a maximum of 40% of the volume and 20% of the stems in any given stand.
3. Harvesting will not be permitted in the following areas:
   (i) areas associated with high recreational use in the vicinity of the Great Glacier
   (ii) area around Gleason Monument
   (iii) area around Tahltan fish processing facility
   (iv) area around Great Glacier Salmon fish processing facility
   (v) area in the vicinity of the Choquette Hot Springs.
4. Settings:
   (i) Settings must be referred to, and approved by the appropriate provincial and federal agencies prior to commencement of cutting. It is anticipated that during the first year of operation there will be little time for response. DFO personnel will be available for on site inspection of proposed areas on short (14 day) notice;
   (ii) Subsequent years' applications should be planned to extend the review period. It would be best to have the following year's cutting plans available no later than August 1 of the year preceding the harvesting in question;

(iii) Trees may be harvested to the edge of fish bearing streams, but all branches, debris, etc. must be removed from the streams;

(iv) On steep slopes, branches and other debris should be removed from drainage courses to lessen the potential for debris torrents.

5. Landings and watering sites:

(i) All proposed landings and watering sites must be referred to and approved by the appropriate provincial and federal agencies prior to preparation;

(ii) DFO personnel will be made available on 14 days notice to conduct on site inspection of the proposed landings;

(iii) Landings and settings for the second and subsequent years must be identified by August 1 of the year prior to use;

(iv) The immense variability of the sites in the area precludes meaningful guidelines being formulated. It is anticipated that each landing and watering site will be assessed, and conditions on its use placed as part of the approval process.

Little log storage is anticipated, however, application will be assessed on its own merits.

6. Log transport:

(i) Log transport by booming shall be undertaken during times of adequate water level, preferably during the time frame May 15 to July 1 in any year;

(ii) Minimum water depth in the main booming channel in the Stikine River should be 8 to 10 feet, and personnel involved in the transport of booms shall ensure that no scouring or contact with riverbanks, bars, or riverbeds shall occur;

(iii) Logs must be sorted and stored on dry land;

(iv) Logs must be bundled;

(v) Bundles must be prepared and stored on dry land, until booms are ready to be made up;

(vi) Log bundles shall be watered using techniques to prevent erosion or contact with unstable stream banks along the river (eg. watering with crane). Use of "brow logs" (skid logs) in unstable areas is unacceptable;

(vii) Lateral projection of logs from bundles must be minimized;

(viii) Booms must be stored for a minimal period of time only on the booming ground;

(ix) Floating debris must be contained by booms and regularly collected and disposed of away from stream channels;

(x) Transportation of booms must be undertaken utilizing vessels adequately powered, and operated by experienced, well-trained personnel, to effectively control boom movement in river channels;

(xi) Booms must be constructed of a size that can be safely transported and maneuvered to prevent streambank or streambed erosion, or destruction of private property (eg. fish nets, anchor lines, etc.);

(xii) Transportation of booms must not interfere directly or indirectly with any commercial fishing being undertaken on the river;

(xiii) Transport of booms should be undertaken during daylight hours only;

(xiv) Further operating conditions may be required should the need for additional protection become evident. The Development Plan must address these constraints and illustrate the strategies planned to operate within these guidelines.

7. Forest Protection Measures:

(i) The Spruce Bark Beetle is known to be at endemic levels in this area. Experience in this area has shown that the creation of beetle habitat through logging could lead to an epidemic situation. Suitable techniques for minimizing favourable bark beetle habitat must be identified in the development plan.

# APPENDIX 2

# MINERAL VALUES AND POTENTIAL IN THE LOWER STIKINE AREA

The following information was taken from a memo from David Lefebure, District Geologist, Ministry of Energy, Mines and Petroleum Resources to J.G. Snetsinger of the Ministry of Forests dated January 25, 1988.

Mineral Potential of the Lower Stikine Region:

Within the Lower Stikine planning area, there are approximately 20 mineral occurrences. There are more than 100 mineral occurrences in the Lower Stikine region, including two large porphyry copper deposits east of the Stikine River. These are Galore Creek with 113 million tonnes of 1.08% copper, 0.397 grams gold per tonne and 7.94 grams silver per tonne and Schaft Creek with 910 million tonnes of 0.3% copper, 0.03% molybdenum, 0.113 grams gold per tonne and 0.992 grams silver per tonne. The entire Lower Stikine region has been poorly explored for mineral deposits because the access is so difficult.

Current exploration activity in the Lower Stikine region is along the Iskut River and east of the Stikine River. There is no record of companies exploring in the planning area in 1987.

In the past there has been mineral exploration along the Stikine River within the planning area. Most of this activity has been focused in three areas:

i) Porcupine River to Jack Wilson Creek;

ii) Dokdaon Creek; and

iii) Chutine River.

There are some claims inside the planning area along the Stikine River (L3630, L85, L475), near Dokdaon Creek (44626, 44627, 44636 and 44637), and on Kirk Creek (2371) and Chutine River (2368, 2369, 2370).

Locations with particularly notable mineral potential outside the planning area are:

i) Chutine River;

ii) Barrington River designated placer area;

iii) Scud River to Sphaler Creek area; and

iv) Iskut River area.

Future mines in all these areas could benefit from ground access along parts of the proposed recreation corridor.

In fact, exploration in the entire Lower Stikine region has only begun to reveal the mineral potential of the area. The same geological formations which host numerous mines and deposits in the Stewart mining camp continue north-northwest to beyond the Stikine River. There is every reason to expect that similar ore deposits to Silbak-Premier, Big Missouri, Scottie Gold and Granduc exist in the Lower Stikine region. This mineral potential must be recognized in any plans for the future of the region.

Conclusions:

1. The mineral potential of the Lower Stikine region is high, but difficult to properly assess due to the limited amount of exploration.

2. Several areas of demonstrated mineral potential exist within the Lower Stikine planning area. These are located:
   i) from Porcupine River to Jack Wilson Creek;
   ii) near Dokdaon Creek; and
   iii) close to Chutine River.
3. Access routes along the river valleys in the proposed recreation area, particularly along the Stikine and Iskut Rivers, could be essential to the development of future exploration projects and mines.

# MAPS NOT FILMED

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